



David J. Johnson  
Director  
Service Engineering Operations  
Ford Customer Service Division

Ford Motor Company  
P. O. Box 1904  
Dearborn, Michigan 48121

November 19, 2021

**TO:** All U.S. Ford and Lincoln Dealers

**SUBJECT:** **Customer Satisfaction Program 21N03 – Supplement #3**  
Certain 2017-2020 Model Year F-150, 2018-2020 Expedition, and 2018-2020 Navigator Vehicles Equipped with a 3.5L GTDI Engine  
Cam Phaser Replacement

**REF:** **Customer Satisfaction Program 21N03 – Supplement #2**  
Dated September 13, 2021

**New! REASON FOR THIS SUPPLEMENT**

- **Parts Requirements / Ordering Information** - Due to limited availability of originally specified parts, alternate option parts have been added.
- **Submitting Claims with Customer Loyalty Program for Balance Remaining** – Added instructions on how to use Lincoln Loyalty funds.

**PROGRAM TERMS**

This program extends the warranty coverage of the engine cam phasers until January 1, 2023 provided the Repair Order (RO) date of Powertrain Control Module reflash under Customer Satisfaction Program 21B10 occurs on or before February 28, 2022.

Ford will cover the repair or refund costs following the proration table below using the mileage shown on the RO.

Ford Vehicles	
Mileage	Ford Will Cover
Up to 69,999	100%
70,000 – 79,999	66%
80,000 – 89,999	33%
90,000 or higher	0%

Lincoln Vehicles	
Mileage	Lincoln Will Cover
Up to 79,999	100%
80,000 – 89,999	66%
90,000 – 99,999	33%
100,000 or higher	0%

This is a one-time repair program.  
Coverage is automatically transferred to subsequent owners.

## **VEHICLES COVERED BY THIS PROGRAM**

<b>Vehicle</b>	<b>Model Year</b>	<b>Assembly Plant</b>	<b>Build Dates</b>
F-150	2017-2020	Dearborn	March 10, 2016 through November 30, 2019
		Kansas	April 15, 2016 through November 30, 2019
Expedition	2018-2020	Kentucky Truck	March 14, 2017 through November 30, 2019
Navigator	2018-2020	Kentucky Truck	March 16, 2017 through December 21, 2019

Note: This program now includes the F-150 Raptor/Limited variants.

Affected vehicles are identified in OASIS.

## **REASON FOR PROVIDING EXTENDED WARRANTY COVERAGE**

In some of the affected vehicles, an undesirable noise may develop from the cam phasers in the 3.5L GTDI engine. This noise might occur as a rattle when starting the engine after the vehicle was turned off for an extended period of time or as a knocking noise when the engine is idling after it is warmed up. These concerns should be addressed by the updated calibration provided in FSA 21B10. However, for peace of mind, Ford is providing an extended warranty for customers who receive the PCM update under program 21B10 prior to February 28, 2022 and continue to experience cam phaser noise after receiving that PCM update.

A cam phaser that has developed an undesirable noise does not affect the vehicle safety, performance, or emissions.

## **SERVICE ACTION**

If an affected vehicle exhibits this condition, dealers are to replace all four cam phasers. This service will be covered by Ford Motor Company following the proration table contained within the terms and conditions.

## **OWNER NOTIFICATION MAILING SCHEDULE**

Owner Letters were mailed the week of September 27, 2021. Dealers should repair any affected vehicles that experience undesirable cam phaser noise after field service action 21B10, whether or not the customer has received a letter.

## **New! ATTACHMENTS**

*Attachment I: Administrative Information*

*Attachment II: Labor Allowances and Parts Ordering Information*

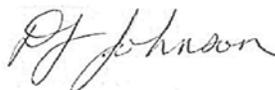
Attachment III: Technical Information

Owner Notification Letters

## **QUESTIONS & ASSISTANCE**

For questions and assistance, contact the Special Service Support Center (SSSC) via the SSSC Web Contact Site. The SSSC Web Contact Site can be accessed through the Professional Technician System (PTS) website using the SSSC link listed at the bottom of the OASIS VIN report screen or listed under the SSSC tab.

Sincerely,



David J. Johnson

**Customer Satisfaction Program 21N03 – Supplement #3**

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**OASIS ACTIVATION**

OASIS was activated on March 2, 2021. Vehicles will not show FSA 21N03 until FSA 21B10 has been completed and processed.

**FSA VIN LISTS ACTIVATION**

FSA VIN Lists will not be activated for this service action.

**SOLD VEHICLES**

- Only owners with affected vehicles that exhibit the covered condition will be directed to dealers for repairs.
- Dealers are to prioritize repairs of customer vehicles over repairs of new and used vehicle inventory.

**STOCK VEHICLES**

- Do not perform this program unless the affected vehicle exhibits the covered condition.

**TITLE BRANDED / SALVAGED VEHICLES**

**Vehicles with cancelled warranties are not eligible for this service action.**

**OWNER REFUNDS**

- Ford Motor Company is offering a refund for owner-paid repairs covered by this program if the repair was performed before the date of the Owner Notification Letter. This refund offer expires February 28, 2022.
- Dealers are also pre-approved to refund owner-paid emergency repairs that were performed away from an authorized servicing dealer after the date of the Owner Notification Letter. Non-covered repairs, or those judged by Ford to be excessive, will not be reimbursed.
- Refunds will only be provided for the cost associated with cam phaser replacement due to unacceptable noise.
- To ensure that the correct proration is applied, follow the directions in the Refund Claiming section.

Note: FSA 21B10 must be claimed by February 28, 2022 to activate 21N03 and provide eligibility for customer refunds. Please contact the SSSC if the customer no longer owns the vehicle.

**RENTAL VEHICLES**

Dealers are pre-approved for up to 1 day for a rental vehicle. Follow Extended Service Plan (ESP) guidelines for dollar amounts. Rentals will only be reimbursed for the day(s) the vehicle is at the dealership for part replacement. Prior approval for more than 1 rental day is required from the SSSC via the SSSC Web Contact Site.

**LINCOLN PICKUP AND DELIVERY**

Owners of 2017 MY and newer Lincoln vehicles have the option of requesting pickup and delivery service with a Lincoln loaner (up to 2 days) from their dealership. For details, reference EFC08708 2021 Lincoln Pickup & Delivery Updates. Claim the difference of pre-approved days, or any additional rental days approved by the SSSC, as instructed.

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**ADDITIONAL REPAIR (LABOR TIME AND/OR PARTS)**

Additional repairs identified as necessary to complete the FSA should be managed as follows:

- For related damage and access time requirements, refer to the Warranty and Policy Manual – Section 6 – Ford & Lincoln Program Policies / General Information & Special Circumstances for FSA's / Related Damage.
- For vehicles within new vehicle bumper-to-bumper warranty coverage, no SSSC approval is required, although related damage must be on a separate repair line with the Related Damage radio button checked.
  - Ford vehicles – 3 years or 36,000 miles
  - Lincoln vehicles – 4 years or 50,000 miles
- For vehicles outside new vehicle bumper-to-bumper warranty coverage, submit an Approval Request to the SSSC Web Contact Site prior to completing the repair.

**CLAIMS PREPARATION AND SUBMISSION**

- **Claim Entry:** Enter claims using Dealer Management System (DMS) or One Warranty Solution (OWS) online.
  - When entering claims:
    - Claim type 31: Field Service Action. The FSA number 21N03 is the sub code.
    - Customer Concern Code (CCC): N09
    - Condition Code (CC): 42
    - Causal Part Number: 6256
    - Part Quantity: 0
  - For additional claims preparation and submission information, refer to the Recall and Customer Satisfaction Program (CSP) Repairs in the OWS User Guide.
- **Related Damage/Additional labor and/or parts:** Must be claimed as Related Damage on a separate repair line from the FSA with same claim type and sub code as described in Claim Entry above.
- **IMPORTANT:** Click the Related Damage Indicator radio button.
- **Rentals:** For rental vehicle claiming, follow Extended Service Plan (ESP) guidelines for dollar amounts. Enter the total amount of the rental expense under Miscellaneous Expense code RENTAL.
- **Lincoln Pickup & Delivery:** Claims for Lincoln Pickup & Delivery with a Lincoln loaner (up to 2 days) should be submitted on a separate line from the FSA. Refer to EFC08708, 2021 Lincoln Pickup & Delivery Updates for details.
- **Refund Claiming Instructions:** Submit each unique refund on a separate **repair order**.
 

- Program Code: 21N03	- Misc. Expense: ADMIN
- Misc. Expense: REFUND	- Misc. Expense: 0.2 Hrs.

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- **Refund Claiming Instructions Continued:**

- To ensure that the correct proration is applied, OWS will automatically do the prorate calculations. See below.
  - **Step 1** – Claim Repair Order write up in dealer DMS
    - Open separate RO from 21B10 in the dealer DMS
    - **NO OTHER REPAIR LINES ALLOWED**
    - Check that original repair receipt provided matches vehicle owner
    - Check original repair mileage qualifies for the prorate
    - Use the **CURRENT DATE** and **MILEAGE** on this Repair Order
    - Customer Concern field - Enter (Requests Refund for Program 21N03)
    - Tech comment section - Provide Date of Repair, Mileage, Full Dollar Amount of Original Repair
    - Refund amount is only for the **CAM PHASER** repairs
    - Do a misc. expense at **ZERO** dollars
    - Close RO – Ensure REFUND is at zero dollars
    - Do **NOT** submit via DMS
  - **Step 2** – Claim submittal into OWS
    - **MANUALLY ENTER THIS CLAIM**
    - Enter the **DATE** and **MILEAGE FROM THE ORIGINAL REPAIR RECEIPT**
    - Enter the **CURRENT RO NUMBER**
    - Submit for the **FULL** amount of the refund. OWS will **AUTOMATICALLY** prorate the refund for you based on the original mileage from the customer repair invoice provided to you
    - **PRE-VALIDATE** and **SUBMIT**
    - When claim pays, perform necessary accounting adjustments depending on your DMS
    - Provide customer with refund check

- **Proration Table**

Ford Vehicles	
Mileage	Ford Will Cover
Up to 69,999	100%
70,000 – 79,999	66%
80,000 – 89,999	33%
90,000 or higher	0%

Lincoln Vehicles	
Mileage	Ford Will Cover
Up to 79,999	100%
80,000 – 89,999	66%
90,000 – 99,999	33%
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**• Submitting Claims with Ford or Lincoln Protect for Balance Remaining**

- If the customer has an active Ford Protect contract that will cover the repair, the remaining amount can be submitted to Ford Protect on another line.
  - Please follow these submission instructions to claim the remaining parts/labor/loaner under Ford Protect:
    - Claim Type: 11 – Vehicle Coverage
    - Sub-Code: ESP
    - Causal Part: 6256
    - CCC: N09
    - CC: 42
    - Customer Comments: Include the FSA number as well as the RO/Line that was submitted for the FSA reimbursed cost (E.g., “FSA 21N03 portion paid on RO 123456, Line 01”)
    - Dealer Comments: Include comments detailing the Total Cost of the Repair and the FSA reimbursed amount/percentage. (E.g., “Total repair cost \$1200.00, FSA covering \$792.00 which is pro-rated 66% of repair. ESP to cover remaining 34%.”)
    - Parts: Use **FSAPRTPR**, enter quantity of 1, and in the “Amount” field of the part line enter the customer responsibility portion of the pro-rate (this is the total part amount minus what is being reimbursed by the FSA)
    - Labor: Use **FSALABORPR**, enter quantity of 1, and enter the customer responsibility portion of the pro-rate (this is the total labor amount minus what is being reimbursed by the FSA)
    - Miscellaneous:
      - Loaner: Use “**LOANER**” and enter the total loaner days to be covered by Ford Protect and the total amount to be covered by Ford Protect. Please note that Ford Protect loaner rules apply (max daily rate, max number of days). Ford Protect will not reimburse for loaner in excess of contract terms.
      - Enter any applicable tax according to normal Ford Protect tax rules in your state. Note that only the costs reimbursed by Ford Protect are taxable.
  - Once you submit the claim, OWS will automatically remove the deductible, if one applies.
  - Note that Ford Protect Prior Approval is required for a claim that is reimbursing for the customer responsibility portion of a pro-rated FSA claim under sub-code ESP when more than 4 days of loaner are required or when the GROSS reimbursement amount exceeds your Ford & Lincoln Protect self-approval limit.

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Certain 2017-2020 Model Year F-150, 2018-2020 Expedition, and 2018-2020 Navigator Vehicles  
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- **Submitting Claims with Customer Loyalty Program for Balance Remaining**
  - **For Expedition and F-150 claims**
    - Create Empowerment case (if total repair is <=\$750) or CRC Fast Path case if >\$750 to get the amount and approval code for Ford's CLP participation
    - Claim Type: 13
    - Sub-Code: PCLP (Empowerment), P11 (CRC)
    - Causal Part: 6256
    - CCC: N09
    - CC: 42
    - Customer Comments: Include the FSA number as well as the RO/Line that was submitted for the FSA reimbursed cost (E.g., "FSA 21N03 portion paid on RO 123456, Line 01")
    - Dealer Comments: Include comments detailing the Total Cost of the Repair and the FSA reimbursed amount/percentage. (E.g., "Total repair cost \$1200.00, FSA covering \$792.00 which is pro-rated 66% of repair. CLP to cover remaining 34%.")
    - Parts: Use FSAPRTPR, enter quantity of 1, and in the "Amount" field of the part line enter the customer responsibility portion of the pro-rate (this is the total part amount minus what is being reimbursed by the FSA)
    - Labor: Use FSALABORPR, enter quantity of 1, and enter the customer responsibility portion of the pro-rate (this is the total labor amount minus what is being reimbursed by the FSA)

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- **New!** For Dealers that wish to claim the Balance Remaining using Lincoln Loyalty Funds on Navigator claims
  - Claim Type: 13
  - Sub-Code: P18
  - Causal Part: 6256
  - CCC: N09
  - CC: 42
  - Customer Comments: Include the FSA number as well as the RO/Line that was submitted for the FSA reimbursed cost (E.g., “FSA 21N03 portion paid on RO 123456, Line 01”)
  - Dealer Comments: Include comments detailing the Total Cost of the Repair and the FSA reimbursed amount/percentage (E.g., “Total repair cost \$1200.00, FSA covering \$792.00 which is pro-rated 66% of repair. CLP to cover remaining 34%.”)
  - Parts: Use FSAPRTPR, enter quantity of 1, and in the “Amount” field of the part line enter the customer responsibility portion of the pro-rate (this is the total part amount minus what is being reimbursed by the FSA)
  - Labor: Use FSALABORPR, enter quantity of 1, and enter the customer responsibility portion of the pro-rate (this is the total labor amount minus what is being reimbursed by the FSA)
  - Loaner: Use “RENTAL” and enter the total loaner days to be covered by CLP and the total amount to be covered by CLP. Please note that CLP rental rules apply (max daily rate, max number of days).
    - Normal approval requirements apply based on the total amount being paid by CLP.
  - *Ford-only dealers with no Lincoln P18 funds, or Lincoln dealers that do not have sufficient P18 funds to cover the balance, submit a Financial Assistance Request in GCCT to the Lincoln Concierge.*

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**LABOR ALLOWANCES**

Description	Labor Operation	Labor Time
Replace all four (4) VCT units – F-150 (excluding Raptor)	21N03B	9.5 Hours
Replace all four (4) VCT units – F-150 Raptor	21N03C	9.7 Hours
Replace all four (4) VCT units – Navigator	21N03D	9.8 Hours
Replace all four (4) VCT units – Expedition	21N03E	9.8 Hours
Reprogram PCM - F-150/Raptor/Exp/Nav	21N03F	0.2 Hours

**New! PARTS REQUIREMENTS / ORDERING INFORMATION**

Part Number	Description	Order Quantity	Claim Quantity
HL3Z-6256-CD*	Intake VCT Unit - Package Contains 1 Piece, 2 Pieces Required	2	2
<i>*Note: If part HL3Z-6256-CD is not available, part ML3Z-6256-A is an alternate option.</i>			
HL3Z-6C525-CD*	Exhaust VCT Unit - Package Contains 1 Piece, 2 Pieces Required	2	2
<i>*Note: If part HL3Z-6C525-CD is not available, part ML3Z-6C525-A is an alternate option.</i>			
HL3Z-6279-A	VCT Unit Bolt Package Contains 1 Piece, 4 Pieces Required	4	4
ML3Z-6584-G	Left Valve Cover Gasket	1	1
HL3Z-6584-A	Right Valve Cover Gasket	1	1
HL3Z-9439-A	Intake Port Gasket - Package Contains 3 Pieces, 6 Pieces Required	2	6
W503275-S437	High Pressure Fuel Tube Retaining Bolt - Package Contains 4 Pieces, 1 Piece Required	1	1
W503280-S437	High Pressure Fuel Tube Retaining Bolt - Package Contains 4 Pieces, 1 Piece Required	1	1
W714498-S900	High Pressure Pump Mounting Bolt - Package Contains 4 Pieces, 2 Pieces Required	1	2
AA5Z-9E583-A	High Pressure Pump O-ring	1	1
HL3Z-8507-A	Coolant Pump Gasket	1	1
BR3Z-8527-A	Coolant Pump O-ring	1	1
HL3Z-6A340-A	Crankshaft Pulley Shaft Bolt	1	1
XW4Z-6700-AA	Front Crankshaft Seal	1	1
BR3Z-6020-A	Front Cover Coolant Pipe Seal	1	1

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BR3Z-6C535-A	Oil Pump Electrical Connector Seal	1	1
AA5Z-6714-A	Oil Filter	1	1
TA-357	Motorcraft® High Performance Engine RTV Silicone	As Needed	
ZC-30-A	Motorcraft® Silicone Gasket Remover	As Needed	
ZC-31-B	Motorcraft® Metal Surface Cleaner	As Needed	
VC-13-G	Motorcraft® Orange Antifreeze/Coolant Concentrated (All Markets Except Canada)	As Needed	
CVC-13-G	Motorcraft® Orange Antifreeze/Coolant Concentrated (Canada Only)	As Needed	
VC-13-G	Motorcraft® Yellow Antifreeze/Coolant Concentrated (All Markets Except Canada)	As Needed	
CVC-13-G	Motorcraft® Yellow Antifreeze/Coolant Concentrated (Canada Only)	As Needed	
XO-5W30-Q1SP	Motorcraft® SAE 5W-30 Premium Synthetic Blend Motor Oil (All Markets Except Canada)	As Needed	
CXO-5W30-LSP6	Motorcraft® SAE 5W-30 Super Premium Motor Oil (Canada Only)	As Needed	
ZC-20	Motorcraft® Engine Shampoo and Degreaser (All Markets Except Canada)	As Needed	
CXC-66-A	Motorcraft® Engine Shampoo (Canada Only)	As Needed	
PM-4-A	Motorcraft® Metal Brake Parts Cleaner (Compliant With Low Volatile Organic Compound Requirements As Required In Some USA States)	As Needed	
PM-4-B	Motorcraft® Metal Brake Parts Cleaner (Not Compliant With Volatile Organic Compound Requirements)	As Needed	
<b>Parts To Inspect And Replace Only If Necessary</b>			
HL3Z-9H486-A	Upper Intake Manifold Gaskets - Package Contains 6 Pieces	If Needed	
BR3Z-6C535-A	VCT Oil Control Seal	If Needed	
BR3Z-6C535-B	Spark Plug Tube Seal	If Needed	
HL3Z-9417-A	High Pressure Pump Mounting Plate Seal	If Needed	
BL3Z-9374-A	High Pressure Pump Mounting Plate O-ring	If Needed	
HL3Z-8507-D	Thermostat Housing O-ring	If Needed	
HL3Z-8527-A	Thermostat Housing O-ring	If Needed	

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HL3Z-8590-A	Water Pump Outlet O-ring	If Needed
HL3Z-9J323-C	High Pressure Pump to Rail Tube	If Needed

Order your parts requirements through normal order processing channels. To guarantee the shortest delivery time, an emergency order for parts must be placed.

**DEALER PRICE**

For latest prices, refer to DOES II.

**PARTS RETENTION, RETURN, & SCRAPPING**

Follow the provisions of the Warranty and Policy Manual, Section 1 - WARRANTY PARTS RETENTION AND RETURN POLICIES. If a replaced part receives a scrap disposition, the part must be scrapped in accordance with all applicable local, state and federal environmental protection and hazardous material regulations. Federal law prohibits selling motor vehicle parts or components that are under safety, compliance, or emissions recall.

**EXCESS STOCK RETURN**

Excess stock returned for credit must have been purchased from Ford Customer Service Division in accordance with Policy Procedure Bulletin 4000.

**REPLACED FSA PARTS INSPECTION AND SIGN OFF**

Effective March 1<sup>st</sup> 2021 all parts replaced as part of an FSA repair with a repair order open date of March 1<sup>st</sup> 2021 or later must be inspected and signed off on the repair order by a member of your dealer's fixed operations management team or an employee the task has been delegated to. If the task is to be delegated to a non-management employee, the employee needs to be someone other than the technician who completed the repair and needs to understand the importance of completing this task consistently and accurately.

- All parts replaced as part of an FSA repair should be returned to the parts department following the Warranty Parts Retention and Return Policies.
- Inspect the replaced parts to verify the FSA repair was completed.
- If the FSA repair is found to be complete, the designated employee signs the repair order line or parts return stamp area (electronic or hand signed) for the FSA repair indicating the parts were inspected and validated to have been replaced.
- After the parts have been inspected, they should be handled based on the guidance in the parts status report in the Online Warranty System (Hold, Return, CORE, Scrap, etc.).
- This process is subject to review during warranty audits for FSA repairs with a repair order open date of March 1<sup>st</sup> 2021 or later. Any eligible FSA claims requiring parts replacement and found not to have been inspected and signed off during a warranty audit will be subject to chargeback and consideration for enrollment into the Dealer Incomplete Recall Repair Process.

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**Note:** Other approvals (electronic or handwritten) for add-on repair lines, dealer owned vehicle repairs, and repeat repairs do not qualify as FSA parts inspection approvals. The post-repair FSA parts inspection process (electronic or handwritten) is independent from other warranty approval requirements. The approval by the designated employee implies that the FSA parts were found to be replaced and must be able to be clearly identified on the Repair Order. If multiple FSA's require approval on a single Repair Order, each applicable occurrence will require individual post repair approval by the designated employee.

## CERTAIN 2017-2020 MODEL YEAR F-150, 2018-2020 EXPEDITION, AND 2018-2020 NAVIGATOR VEHICLES EQUIPPED WITH A 3.5L ECOBOOST ENGINE — CAM PHASER REPLACEMENT

### SERVICE PROCEDURE

**NOTE:** This procedure will only resolve noise concerns with the cam phasers. The two noise concerns that a phaser can make is a cold engine start rattle and a hot idle knock. These sound clips are representative of a cam phaser noise.

- i. Sound captured of a cold engine rattle. [Click Here.](#)
- ii. Sound captured of a hot idle knock. [Click Here.](#)

**NOTE:** The following parts may be reused for this repair if no damage is present.

- Intake gaskets (HL3Z-9H486-A).
- High pressure fuel tube (HL3Z-9J323-C) may be reused for this repair, if the fuel tube has not previously been reused. The high-pressure fuel pump to fuel rail high-pressure fuel tube flare nuts must be torqued to 32 Nm +/-2 Nm when reusing the fuel tube for this FSA.
- VCT solenoid seals (BR3Z-6C535-A) and spark plug tube seals (BR3Z-6C535-B) should continue to be reused if no damage is present.

1. Replace all 4 Variable Camshaft Timing (VCT) units. Please follow the Workshop Manual (WSM) procedures in Section 303-01C for F-150 and 303-01 for Expedition and Navigator.

**NOTE:** Do not replace any additional VCT or engine timing related components.

- It is not necessary to remove the two left valve cover camshaft sensors.
- All the VCT solenoid and spark plug tube seals require inspection, but not all require replacement.

**IMPORTANT NOTE:** Federal law prohibits selling motor vehicle parts or components that are under safety, compliance, or emissions recall. Unless a part is requested to be returned to Ford, all parts replaced under this FSA must be scrapped in accordance with all applicable local, state and federal environmental protection and hazardous material regulations. Refer to the Parts Retention, Return, & Scrapping section of the FSA dealer bulletin for further information.



## Module Reprogramming

**NOTE:** All vehicles are to have the Powertrain Control Module (PCM) reprogrammed regardless of symptoms.

**NOTE:** If any other Diagnostic Trouble Codes (DTC's) are present in the PCM and the engine light is illuminated, record them on the repair order and advise the customer that this update will not repair these issues and that the DTC's will be cleared but will return again after this update.

### F-150 VEHICLES

2. Connect a battery charger to the 12 volt battery.

**NOTE:** Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12 volt battery negative terminal to prevent the battery saver mode from activating on the vehicle.

**NOTE:** Make sure the Integrated Diagnostic Software (IDS) computer does not enter sleep mode during programming.

3. Reprogram the PCM using the latest IDS release. Make sure you are connected to the Internet prior to reprogramming. Make sure to select "Yes" at the beginning of the procedure when asked if programming the vehicle is due to an engine shudder.

**NOTE:** Calibration files may also be obtained at [www.motorcraftservice.com](http://www.motorcraftservice.com).

**NOTE:** Follow the IDS on-screen instructions to complete the reprogramming procedure.

4. Clear all DTC's.

5. Disconnect the battery charger from the 12 volt battery once the reprogramming has completed.

**NOTE:** Advise the customer that this vehicle is equipped with an adaptive transmission shift strategy which allows the vehicle's computer to learn the transmission's unique parameters and improve shift quality. When the adaptive strategy is reset, the computer will begin a re-learning process. This re-learning process may result in firmer than normal upshifts and downshifts for several days.



## EXPEDITION AND NAVIGATOR VEHICLES

6. Connect a battery charger to the 12V battery.

**NOTE:** Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12 volt battery negative terminal to prevent the battery saver mode from activating on the vehicle.

**NOTE:** If the diagnostic software does not load or if the vehicle cannot be identified properly, make sure there is a good internet connection and the VCM is properly connected to the DLC.

7. Log into Ford Diagnostic and Repair System (FDRS).

**NOTE:** Vehicle information is automatically retrieved by the diagnostic software and a Network Test is run. Vehicle identification data appears on the screen when this is complete.

8. Click 'Read VIN from Vehicle' or manually enter the VIN.

**NOTE:** Available modules are shown on the LH side of the screen, and available procedures are listed on the RH side of the screen. Modules that are communicating are highlighted in green.

9. Select Toolbox tab.

10. From the list on the LH side of the screen, select the PCM.

11. From the list on the RH side of the screen, select PCM - Powertrain Control Module (PCM) Software Update.

12. Click RUN. Follow all on-screen instructions carefully. Make sure to select "Yes" at the beginning of the procedure when asked if programming the vehicle is due to an engine shudder.

13. From the list on the RH side of the screen, select Self-Test and click RUN.

14. Click the Run Selected Tests button in the lower right.

15. Click the Clear & Retest button at the top of the screen to clear DTCs in all modules.

16. Disconnect the battery charger from the 12V battery once the programming has completed.

**NOTE:** Advise the customer that this vehicle is equipped with an adaptive transmission shift strategy which allows the vehicle's computer to learn the transmission's unique parameters and improve shift quality. When the adaptive strategy is reset, the computer will begin a re-learning process. This re-learning process may result in firmer than normal upshifts and downshifts for several days.



## Important Information for Module Programming when using IDS

**NOTE:** When programming or reprogramming a module, use the following basic checks to ensure programming completes without errors.

- Make sure the 12V battery is fully charged before carrying out the programming steps and connect IDS/scan tool to a power source.
- Inspect Vehicle Communication Module (VCM) and cables for any damage. Make sure scan tool connections are not interrupted during programming.
- A hardwired connection is strongly recommended.
- Turn off all unnecessary accessories (radio, heated/cooled seats, headlamps, interior lamps, HVAC system, etc.) and close doors.
- Disconnect/depower any aftermarket accessories (remote start, alarm, power inverter, CB radio, etc.).
- Follow all scan tool on-screen instructions carefully.
- Disable IDS/scan tool sleep mode, screensaver, hibernation modes.
- Create all sessions key on engine off (KOEO). Starting the vehicle before creating a session will cause errors within the programming inhale process.

## Recovering a module when programming has resulted in a blank module: **NEVER DELETE THE ORIGINAL SESSION!**

- a. Obtain the original IDS that was used when the programming error occurred during module reprogramming (MR) or programmable module installation (PMI).
- b. Disconnect the VCM from the data link connector (DLC) and the IDS.
- c. Reconnect the VCM to IDS and then connect to the DLC. Once reconnected, the VCM icon should appear in the corner of the IDS screen. If it does not, troubleshoot the IDS to VCM connection.
- d. Locate the original vehicle session when programming failed. This should be the last session used in most cases. If not, use the session created on the date that the programming failed.

**NOTE:** If the original session is not listed in the previous session list, click the Recycle Bin icon at the lower right of the previous session screen. This loads any deleted sessions and allows you to look through them. Double-click the session to restore it.

- e. Once the session is loaded, the failed process should resume automatically.
- f. If programming does not resume automatically, proceed to the Module Programming menu and select the previously attempted process, PMI or MR.
- g. Follow all on-screen prompts/instructions.
- h. The last screen on the IDS may list additional steps required to complete the programming process. Make sure all applicable steps listed on the screen are followed in order.



## Important Information for Module Programming when using FDRS

**NOTE:** When programming a module, use the following basic checks to ensure programming completes without errors.

- Make sure the 12V battery is fully charged before carrying out the programming steps and connect FDRS/scan tool to a power source.

**NOTE:** A good internet connection is necessary to identify the vehicle and to load the diagnostic software.

- Inspect Vehicle Communication Module II (VCM II)/Vehicle Communication and Measurement Module (VCMM) and cables for any damage. Make sure scan tool connections are not interrupted during programming.
- A hardwired connection is strongly recommended.
- Turn off all unnecessary accessories (radio, heated/cooled seats, headlamps, interior lamps, HVAC system, etc.) and close doors.
- Disconnect/depower any aftermarket accessories (remote start, alarm, power inverter, CB radio, etc.).
- Follow all scan tool on-screen instructions carefully.
- Disable FDRS/scan tool sleep mode, screensaver, hibernation modes.
- Create all sessions key on engine off (KOEO). Starting the vehicle before creating a session will cause errors within the programming inhale process.

## Recovering a module when programming has resulted in a blank module

- a. Disconnect the VCMII or VCMM from the data link connector (DLC) and your PC.
- b. After ten seconds, reconnect the VCMII/VCMM to the DLC and the PC. Launch FDRS. The VCMII/VCMM icon should turn green in the bottom right corner of the screen. If it does not, troubleshoot the FDRS to VCM connection.
- c. If you are using the same FDRS as the initial programming attempt, select the appropriate VIN from the Vehicle Identification menu. If you are using a different FDRS, select "Read VIN from Vehicle" and proceed through the Network Test.
- d. In the Toolbox menu, navigate to the failed module and Download/Run Programmable Module Installation (PMI). Follow the on-screen prompts. When asked if the original module is installed, select "No" and continue through the installation application.
- e. Once programming has completed, a screen may list additional steps required to complete the programming process. Make sure all applicable steps are followed in order.





Ford Motor Company  
Ford Customer Service Division  
P. O. Box 1904  
Dearborn, Michigan 48121

October 2021

Customer Satisfaction Program 21B10, 21N03, and 21N08

Mr. John Sample  
123 Main Street  
Anywhere, USA 12345

Your Vehicle Identification Number (VIN): 12345678901234567

At Ford Motor Company, we are committed not only to building high quality, dependable products, but also to building a community of happy, satisfied customers. To demonstrate that commitment, we are providing a no-charge Customer Satisfaction Program for your vehicle with the VIN shown above to reprogram the powertrain control module (PCM).

**Why are you receiving this notice?**

On your vehicle, it may be possible that an undesirable noise may develop from the cam phasers in the 3.5L GTDI engine. This noise might occur as a rattle when starting the engine after your vehicle was turned off for an extended period of time, or as a knocking noise when the engine is idling after it is warmed up. Ford Motor Company has developed an update to the PCM software that helps protect your cam phasers so that they will not develop an undesirable noise. This PCM update is program 21B10.

In rare instances, some vehicles will experience an engine shudder after reprogramming the PCM with the 21B10 update. Ford Motor Company will provide a no-cost, one-time repair under program 21N08 to return the vehicle's PCM to the prior calibration.

Additionally, for customers who receive the PCM update under program 21B10 prior to February 28, 2022 and continue to experience cam phaser noise, Ford Motor Company will provide an prorated, one-time repair for the cam phasers under Customer Satisfaction Program 21N03, and coverage will expire on January 1, 2023. Program 21N03 will reimburse for a one-time repair based on the mileage chart on the next page.

**What is the effect?**

A cam phaser that has developed an undesirable noise does not affect the vehicle safety, performance, or emissions.

**What will Ford and your dealer do?**

In the interest of customer satisfaction, Ford Motor Company has authorized your dealer to address this issue by reprogramming the PCM free of charge (parts and labor) under the terms of program 21B10. Receiving this service on or before February 28, 2022 may help avoid additional repairs and will activate Customer Satisfaction Program 21N03 on your vehicle.

**Continued...**

You can have your vehicle's PCM reprogrammed under Customer Satisfaction Program 21B10 until July 31, 2022, regardless of mileage. Coverage is automatically transferred to subsequent owners.

If your vehicle exhibits an engine shudder after the 21B10 PCM reprogram, Ford Motor Company has authorized your dealer to revert the PCM programming back to the prior version under Customer Satisfaction Program 21N08. Customer Satisfaction Program 21N08 is a no-cost, one-time repair.

If your vehicle exhibits an undesirable noise generated by the cam phasers, and your cam phasers are no longer covered under your powertrain warranty, Ford Motor Company has authorized your dealer to replace the cam phasers under Customer Satisfaction Program 21N03, provided that you received the 21B10 PCM reprogramming prior to February 28, 2022. The cost of replacing the cam phasers will be prorated using the table below and will use the vehicle mileage at the time of Repair Order creation for program 21N03. This is a one-time repair program.

Ford Vehicles	
Mileage	Ford Will Cover
Up to 69,999	100%
70,000 – 79,999	66%
80,000 – 89,999	33%
90,000 or higher	0%

**How long will it take?**

The time needed to perform program 21B10 and reprogram the PCM is less than one half day. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time.

The time needed to perform program 21N08 and reprogram the PCM back to the prior level is less than one half day. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time.

The time needed to perform program 21N03 and replace the cam phasers is about one and a half days. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time. Please talk to your dealer if you require a rental vehicle while the cam phasers are being replaced.

**What should you do?**

Please call your dealer without delay to schedule a service appointment for Customer Satisfaction Program 21B10. Provide the dealer with your VIN, which is printed near your name at the beginning of this letter.

If you do not already have a servicing dealer, you can access [owner.ford.com](http://owner.ford.com) for dealer addresses, maps, and driving instructions.

Ford Motor Company wants you to have this service action completed on your vehicle. The vehicle owner is responsible for making arrangements to have the work completed. Ford Motor Company can deny coverage for any

vehicle damage that may result from the failure to have this service action performed on a timely basis. Therefore, please have this service action performed as soon as possible.

NOTE: You can receive information about Recalls and Customer Satisfaction Programs through our FordPass App. The app can be downloaded through the App Store or Google Play. In addition, there are other features such as reserving parking in certain locations and controlling certain functions on your vehicle (lock or unlock doors, remote start) if it is equipped to allow control.

**COVID-19  
(CORONAVIRUS)**

Ford dealerships have implemented enhanced protocols to ensure both your safety and the safety of dealership employees. This includes specific procedures for cleaning and disinfecting customer vehicles before and after each vehicle is serviced. In most places, vehicle service has been deemed a critical service. Please contact your local dealer to confirm current service hours. For more information on how Ford and your local dealer are working hard to keep you on the road during these challenging times, please visit [owner.ford.com](http://owner.ford.com).

**Have you previously paid for this repair?**

If you have previously paid for a repair that addresses the issue described in this letter, you still need to have this service action performed to ensure the correct parts were used.

If the previously paid for repair was performed before the date of this letter, you may be eligible for a refund under program 21N03. Refunds will only be provided for service related to cam phaser replacement due to noise. To verify eligibility and expedite reimbursement, give your paid original receipt to your dealer before February 28, 2022. Your refund will be prorated based on the mileage at the time of repair. See table below. To avoid delays, do not send receipts to Ford Motor Company.

Ford Vehicles	
Mileage	Ford Will Cover
Up to 69,999	100%
70,000 – 79,999	66%
80,000 – 89,999	33%
90,000 or higher	0%

**What if you no longer own this vehicle?**

If you no longer own this vehicle, and have an address for the current owner, please forward this letter to the new owner.

You received this notice because our records, which are based primarily on state registration and title data, indicate that you are the current owner.

**Can we assist you further?**

If you have difficulties getting your vehicle repaired promptly and without charge, please contact your dealership's Service Manager for assistance.

**RETAIL OWNERS:** If you have questions or concerns, please contact our **Ford Customer Relationship Center at 1-866-436-7332** and one of our representatives will be happy to assist you. If you wish to contact us through the Internet, our address is: [owner.ford.com](http://owner.ford.com)

For the hearing impaired call 1-800-232-5952 (TDD). Representatives are available Monday through Friday: 8:00AM – 8:00PM (Eastern Time).

FLEET OWNERS: If you have questions or concerns, please contact our **Fleet Customer Information Center at 1-800-34-FLEET**, choose Option #3, and one of our representatives will be happy to assist you. If you wish to contact us through the Internet, our address is: [fleet.ford.com](http://fleet.ford.com).

Representatives are available Monday through Friday: 8:00AM - 8:00PM (Eastern Time).

Thank you for your attention to this important matter.

Ford Customer Service Division



THE LINCOLN MOTOR COMPANY

The Lincoln Motor Company  
P. O. Box 1904  
Dearborn, Michigan 48121

October 2021

Customer Satisfaction Program 21B10, 21N03, and 21N08

Mr. John Sample  
123 Main Street  
Anywhere, USA 12345

Your Vehicle Identification Number (VIN): 12345678901234567

At the Lincoln Motor Company, we are committed not only to building high quality, dependable products, but also to building a community of happy, satisfied customers. To demonstrate that commitment, we are providing a no-charge Customer Satisfaction Program for your vehicle with the VIN shown above.

**Why are you receiving this notice?**

On your vehicle, it may be possible that an undesirable noise may develop from the cam phasers in the 3.5L GTDI engine. This noise might occur as a rattle when starting the engine after your vehicle was turned off for an extended period of time, or as a knocking noise when the engine is idling after it is warmed up. The Lincoln Motor Company has developed an update to the PCM software that helps protect your cam phasers so that they will not develop an undesirable noise. This PCM update is program 21B10.

In rare instances, some vehicles will experience an engine shudder after reprogramming the PCM with the 21B10 update. The Lincoln Motor Company will provide a no-cost, one-time repair under program 21N08 to return the vehicle's PCM to the prior calibration.

Additionally, for customers who receive the PCM update under program 21B10 prior to February 28, 2022 and continue to experience cam phaser noise after receiving that PCM update, The Lincoln Motor Company will provide an extended warranty for the cam phasers. The cam phaser extended warranty is Customer Satisfaction Program 21N03, and coverage will expire on January 1, 2023. Program 21N03 will reimburse for a one-time repair based on the mileage chart on the next page.

**What is the effect?**

A cam phaser that has developed an undesirable noise does not affect the vehicle safety, performance, or emissions.

**What will Lincoln and your dealer do?**

In the interest of customer satisfaction, The Lincoln Motor Company has authorized your dealer to address this issue by reprogramming the PCM free of charge (parts and labor) under the terms of program 21B10. Receiving this service on or before February 28, 2022 may help avoid additional

**Continued...**

repairs and will activate Customer Satisfaction Program 21N03 on your vehicle.

You can have your vehicle’s PCM reprogrammed under Customer Satisfaction Program 21B10 until July 31, 2022, regardless of mileage. Coverage is automatically transferred to subsequent owners.

If your vehicle exhibits an engine shudder after the 21B10 PCM reprogram, The Lincoln Motor Company has authorized your dealer to revert the PCM programming back to the prior version under Customer Satisfaction Program 21N08. Customer Satisfaction Program 21N08 is a no-cost, one-time repair.

If your vehicle exhibits an undesirable noise generated by the cam phasers, and your cam phasers are no longer covered under your powertrain warranty, The Lincoln Motor Company has authorized your dealer to replace the cam phasers under Customer Satisfaction Program 21N03, provided that you received the 21B10 PCM reprogramming prior to February 28, 2022. The cost of replacing the cam phasers will be prorated using the table below and will use the vehicle mileage at the time of Repair Order creation for program 21N03. This is a one-time repair program.

Lincoln Vehicles	
Mileage	Lincoln Will Cover
Up to 79,999	100%
80,000 – 89,999	66%
90,000 – 99,999	33%
100,000 or higher	0%

**How long will it take?**

The time needed to perform program 21B10 and reprogram the PCM is less than one half day. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time.

The time needed to perform program 21N08 and reprogram the PCM back to the prior level is less than one half day. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time.

The time needed to perform program 21N03 and replace the cam phasers is about one and a half days. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time. Please talk to your dealer if you require a rental vehicle while the cam phasers are being replaced.

**What should you do?**

Please call your dealer without delay to schedule a service appointment for Customer Satisfaction Program 21B10. Provide the dealer with the VIN of your vehicle. The VIN is printed near your name at the beginning of this letter.

Lincoln owners of 2017 Model Year or later vehicles affected by this recall have the option of requesting complimentary Pickup & Delivery service with

a Lincoln vehicle for use during service. Please request Lincoln Pickup & Delivery through your dealership if you would like to take advantage of this option.

If you do not already have a servicing dealer, you can access [owner.lincoln.com](http://owner.lincoln.com) for dealer addresses, maps, and driving instructions.

The Lincoln Motor Company wants you to have this service action completed on your vehicle. The vehicle owner is responsible for making arrangements to have the work completed. The Lincoln Motor Company can deny coverage for any vehicle damage that may result from the failure to have this service action performed on a timely basis. Therefore, please have this service action performed as soon as possible.

NOTE: You can receive information about Recalls and Customer Satisfaction Programs through The Lincoln Way: Lincoln Owner App. The app can be downloaded through the App Store or Google Play. In addition there are other features such as reserving parking in certain locations and controlling certain functions on your vehicle (lock or unlock doors, remote start) if it is equipped to allow control.

**COVID-19  
(CORONAVIRUS)**

Lincoln dealerships have implemented enhanced protocols to ensure both your safety and the safety of dealership employees. This includes specific procedures for cleaning and disinfecting client vehicles and vehicles used for Pickup & Delivery\* both before and after each vehicle is serviced. In most places, vehicle service has been deemed a critical service. Please contact your local dealer to confirm current service hours. For more information on how Lincoln and your local dealer are working hard to keep you on the road during these challenging times, please visit [owner.lincoln.com](http://owner.lincoln.com).

*\*Complimentary Lincoln Pickup & Delivery Service is available for all 2017 model year and newer Lincoln vehicles within the 4-year/50,000 mile New Vehicle Limited Warranty. Contact your preferred dealer for important details. Mileage limitations may apply.*

**Have you previously paid for this repair?**

If you have previously paid for a repair that addresses the issue described in this letter, you still need to have this service action performed to ensure the correct parts were used.

If the previously paid for repair was performed before the date of this letter, you may be eligible for a refund under program 21N03. Refunds will only be provided for service related to cam phaser replacement due to noise. To verify eligibility and expedite reimbursement, give your paid original receipt to your dealer before February 28, 2022. Your refund will be prorated based on the mileage at the time of repair. See table below. To avoid delays, do not send receipts to The Lincoln Motor Company.

Lincoln Vehicles	
Mileage	Lincoln Will Cover
Up to 79,999	100%
80,000 – 89,999	66%
90,000 – 99,999	33%
100,000 or higher	0%

**What if you no longer own this vehicle?**

If you no longer own this vehicle, and have an address for the current owner, please forward this letter to the new owner.

You received this notice because our records, which are based primarily on state registration and title data, indicate that you are the current owner.

**Can we assist you further?**

If you have difficulties getting your vehicle repaired promptly and without charge, please contact your dealership's Service Manager for assistance.

RETAIL OWNERS: If you have questions or concerns, please contact our **Customer Relationship Center at 1-866-436-7332** and one of our representatives will be happy to assist you. If you wish to contact us through the Internet, our address is: [owner.lincoln.com](http://owner.lincoln.com).

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Representatives are available Monday through Friday: 8:00AM - 8:00PM (Eastern Time).

Thank you for your attention to this important matter.

The Lincoln Motor Company